

Incidental Ultrasound Findings of Emergency Department Patients with Biliary Symptoms

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Background: Point of care limited ultrasound (PLUS) has been shown to be effective in aiding the dispositions in patients with RUQ pain. Previously published reports suggest incidental findings of approximately 4% in complete abdominal ultrasound exams, causing some groups to have concerns about the routine use of PLUS. These studies were not performed using an emergency department (ED) population, and the patients typically had undifferentiated abdominal pain.

Objectives: To describe the frequency of clinically significant incidental ultrasound findings in patients presenting to the ED with signs and/or symptoms of biliary disease.

Methods: We conducted a retrospective chart review of adult patients > 18 years of age presenting to an urban ED in which an abdominal ultrasound was performed. All abdominal ultrasounds were performed by ultrasound techs and interpreted by radiologists. Trained abstractors reviewed patient charts using the following inclusion criteria: RUQ pain or tenderness, or epigastric pain or tenderness. Patients were excluded if they had a history of trauma or prior cholecystectomy. Data were abstracted onto a structured form. Incidental findings were defined as non-biliary ultrasound findings. Incidental findings were considered clinically significant if they required specific follow-up or changed acute management.

Results: Six hundred ninety-five ED patients received an abdominal ultrasound from May 2006 to December 2006. Of these 695 patients, 299 met inclusion criteria. A total of 69% (95%CI 64-74%) of patients had incidental findings. Clinically significant findings were found in 2% (95% CI 0.5-3.5%).

Conclusion: In this study, we found a high rate of overall incidental findings. However, for patients presenting with signs and symptoms of biliary disease, our rate of clinically significant findings for a complete abdominal ultrasound was significantly lower than previously reported.